

Morgal-11-CIP
PATENT

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Submission Date: March 27, 2008
Interview Request and Issue Summary

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Richard Morgal** Confirmation No.: **1563**
Serial No.: **10/821,593** Group Art Unit: **1795**
Filed: **April 9, 2004** Examiner: **Hall, Asha J.**
For: **METHOD AND APPARATUS FOR SOLAR ENERGY COLLECTION**

USPTO Facsimile 571-273-8300
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTERVIEW REQUEST and SUMMARY OF ISSUES FOR CONSIDERATION

Examiner Hall,

Our informal telephone conversation yesterday was inconclusive. This paper therefore constitutes a request for a formal interview to discuss the issues that are summarized below.

I respectfully request that you pass this application to allowance for the reasons set forth below. Barring that, I respectfully request you to withdraw the finality of the present Office Action so that the issues set forth below may be more fully considered prior to embarking on an arduous appeal. We do not wish to be uncooperative, but filing an RCE is not an option because it would result in a large loss of patent term.

I fully expected that by bringing to your attention Examiner Diamond's International Preliminary Examination Report, which finds virtually the identical claims at issue to be novel and nonobvious over art that includes the Laing and Cluff references upon which your current ground of rejection is based, together with observations supportive of Examiner Diamond's failure to reject over this combination, that it would be an easy and clear matter for you to allow this application.

My response to your pending Final Rejection included citations to the Laing reference that express a forceful "teaching away" from the invention claimed in Claim 1. During yesterday's informal telephone conversation you indicated that you would invoke a case law doctrine which holds that even dispreferred embodiments may be included in combinations of prior art to render obvious a claimed invention. The remarks below demonstrate that this doctrine is inappropriate on the present facts, and then set forth two case law doctrines that are better suited to the present facts, each of which independently support a conclusion that the combination of Cluff and Laing do **not** support *prima facie* obviousness of any of the pending claims.

Thus, the requested interview should cover the following three issues A, B and C:

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A. It is not disputed that a claimed invention may be rendered obvious by a non-preferred embodiment of prior art. However, doctrines are only proper when applied reasonably. If this doctrine is stretched far enough, it will swallow up all of the doctrines that find "teaching away" to be indicative of nonobviousness. This doctrine is inapposite to the present facts.

First, no "non-preferred" embodiment exists, except as a concept that has not been constructively reduced to practice. Laing discloses ONLY single-axis tracking embodiments. Laing DOES say that two-axis tracking is a very bad idea, but that is not the same as saying that a two-axis tracking pontoon solar collector exists but is not preferred.

Second, Laing does not merely suggest that such non-existent embodiment is "not preferred." Rather, Laing vehemently urges that two-axis tracking should not even be tried because it is unlikely to be satisfactory. His description, in both the Abstract and the Background, rises to the level of active teaching away, not mere dispreference of an embodiment.

For both of the reasons above, the doctrine that a rejection may be based upon non-preferred embodiments is not applicable on the present facts.

B. The proposed modification cannot change the principle of operation of a reference. This is a subheading of MPEP section 2143.01, which cites *In re Ratti* for the holding that "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."

The Laing reference is entirely based on a principle of using single axis tracking, and expressly not using two axis tracking. As Laing stated in the Abstract (underlining added): "The aim of the invention is to ensure an approximately uniform conversion rate of the solar radiation largely independently of the height of the sun while avoiding the use of a twin-axis follower system." If this is not clear enough, the patent sets forth the principle of operation again in the background section, stating (underlining added): "The aim of the invention is to ensure an approximately uniform solar conversion which is largely independent of the sun elevation. This is accomplished by avoiding two-axis tracking systems and the use of a given surface almost totally as the aperture surface to capture the radiation.

Thus, using single axis tracking is a basic operating principle of the Laing patent.

All of the claims require two-axis tracking, so the rejection necessarily assumes that it would be obvious to modify Laing to use two-axis tracking (as taught by Cluff). Such a modification would unquestionably change this basic principle of operation of the Laing invention. Consequently, the holding of *In re Ratti* applies to support a conclusion that Cluff and Laing are not sufficient to render any of the claims *prima facie* obvious.

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C. The proposed modification cannot render the prior art unsatisfactory for its intended purpose.

This is another subheading of MPEP section 2143.01, which further states: If [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

It is respectfully submitted that modifying Laing to perform two-axis tracking, as taught by Cluff, would render the result unsuitable for its intended purpose. The first support is circumstantially derived from the insistence of Laing that two-axis tracking is not desirable. He states in the background section: "By reason of their complexity such technical solutions are only competitive with other electricity-producing systems in exceptional cases. In addition, the aperture surfaces of all tracking systems need large relative distances from each other to avoid mutual shading which results in lower area utilization."

Moreover, however, our response to the Final Rejection Office Action set forth two different problems that precluded the ability of Laing to be modified for two-axis tracking. The first problem is that tilting the pontoon for two axis tracking would raise the collector device above the liquid level of the pond, thereby negating the central function of the pontoons, which is to cool the devices properly. The second problem is that if the pontoons are tilted, then they must be spaced widely apart to avoid destructive shadowing. These sound trivial, but they are serious; and prevented the expert John Laing from seeing how to use two-axis tracking with pontoon mounting and cooling.

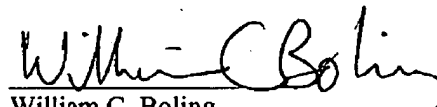
Thus, with the knowledge of those skilled in the art at the time the application was filed, modifying Laing to use two-axis tracking as described by Cluff would have resulted in a device that was unsuitable for its intended purpose for two different reasons. Consequently, the holding of *In re Gordon* applies to support a conclusion that the combination of Cluff and Laing do not establish *prima facie* obviousness of any of the claims, because all require two-axis tracking.

I look forward to an interview to discuss these issues at your earliest convenience. I will call to establish a time that is suitable. I truly hope that the reservations that you have expressed may be laid to rest so that the application can be advanced to issue.

Respectfully submitted,

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